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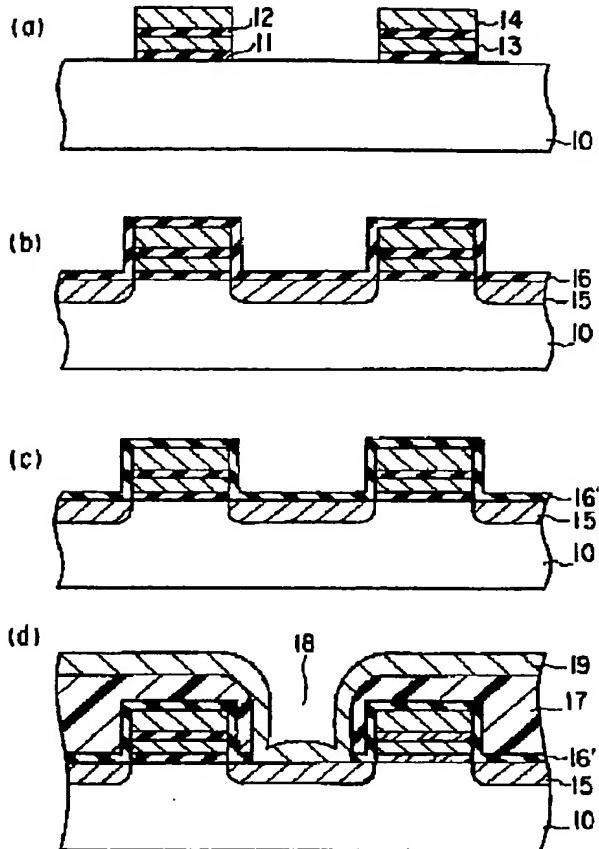
APPLICATION DATE : 04-06-93
APPLICATION NUMBER : 05134584

APPLICANT : TOSHIBA CORP;

INVENTOR : ARAKI HITOSHI;

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TITLE : MANUFACTURE OF NONVOLATILE SEMICONDUCTOR MEMORY



ABSTRACT : PURPOSE: To provide a method of manufacturing a nonvolatile semiconductor memory which forms an oxide film enabling the charge holding characteristic to be improved on the sides of a floating gate.

CONSTITUTION: A silicon oxide 16 covering over a silicon substrate 10, which contains the top and sides of a control gate electrode 14 and the sides of a suspended gate electrode 13, is formed by thermal oxidation or chemical vapor phase epitaxy. And it is subjected to rapid nitriding within 60 seconds by infrared lamp heating in an NH₃ atmosphere over a substrate temperature range of 800° to 1100°C to convert a silicon oxide 16 to silicon nitride oxide 16'.

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